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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,065	01/07/2004	Michael Prencipe	7419-01	6521
23909	7590	10/17/2007		
COLGATE-PALMOLIVE COMPANY			EXAMINER	
909 RIVER ROAD			ROBERTS, LEZAH	
PISCATAWAY, NJ 08855			ART UNIT	PAPER NUMBER
			1614	
			MAIL DATE	DELIVERY MODE
			10/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/754,065

Applicant(s)

PRENCIPE ET AL.

Examiner

Lezah W. Roberts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11, 14-21, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-21, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

This Office Action is in response to the Amendment filed August 3, 2007. All rejections have been withdrawn unless stated below.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claims***

#### **Claim Rejections - 35 USC § 103 – Obviousness (Previous Rejections)**

1) Claims 15-21 and 24-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lawlor (WO 02/34221) in view of Miranda et al. (US 5,656,286) in further view of Chen (US 2003/0129148). The rejection is maintained.

#### **Applicant' Arguments**

Applicant argues that the combination of references does not render the present invention obvious. None of the references teach a whitening composition that includes a hydrophobic polymer that is a condensation product of a silicon resin and an organosiloxane, wherein the polymer comprises the recited ratios. Moreover, a person of skill in the art would not be motivated to combine the three references. Lawlor teaches the compositions are substantive, Miranda teach transdermal compositions and is silent on tooth whitening delivery systems, and Chen is merely used for the disclosure of a tray. One would not have had reasonable expectation that such combination would result in a successive composition for tooth whitening. These arguments are not persuasive.

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Examiner's Response

Lawlor teaches compositions for use in the oral cavity. The active ingredients include peroxides, which may be used to whiten the teeth. Lawlor also discloses the delivery of tooth whitening agents for bleaching or removing stains from the teeth. The reference suggests using rheology modifiers and thickeners such as polymers, in the compositions. In regards to Miranda, it discloses the advantages of adding a hydrophilic polymer such polyvinyl pyrrolidone to the hydrophobic polymer comprising compositions. The compositions are also used to deliver oral care agents. This is supported by the disclosure that dental caries agents may be delivered by the system. One would be motivated to use the hydrophilic polymers of Miranda to obtain the beneficial properties disclosed by the reference, particularly because the reference teaches combinations of silicone polymers and polyvinyl pyrrolidone. One would also be motivated to use condensation products of the silicone polymers as oppose to the components separately because the condensation products have improved adhesive properties as supported by Miranda. In regards to Chen, although Lawlor teaches certain ways to apply the compositions to the teeth, one of ordinary skill in the art would recognize the disadvantages of exposing the compositions to the gums when whitening the teeth and therefore would use ways disclosed by the art to deliver substance to the teeth without causing discomfort to the patient, such as irritation from the peroxide. In the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to have used the teachings of the combined references to make the delivery devices of the instant claims.

2) Claims 23-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lawlor (WO 02/34221) in view of Chen (US 2003/0129148) as applied to claims 15-19 and 20-21 above, and further in view of Pfister et al. (US 5,232,702). The rejection is maintained in regards to claims 24-25 and applied to claims 15-21.

*Applicant's Arguments*

Applicant argues Pfister is silent in regards to the use of silicone pressure sensitive adhesives with a dental tray for application to the teeth. Lawlor and Pfister are both silent as to tooth whitening compositions that include a hydrophobic polymer that is a condensation product of a silicone resin and an organosiloxane. Each reference lacks an element that makes it different from the instant claims. This argument is not persuasive.

*Examiner's Response*

Lawlor discloses compositions that may comprise whitening agents for bleaching teeth and also discloses the polymers used are silicone polymers comprising silicone resins and organosiloxane in overlapping ranges of that disclosed by the instant claims. Pfister discloses the advantages of using silicone-based polymers with polymers such as polyvinyl pyrrolidone. It also discloses the parts used of silicone resin and organosiloxane. The polymers may be condensation products and this is supported by the Examples disclosed by Pfister. One of ordinary skill in the art would combine the teachings of Lawlor and Pfister motivated by the desire to improve the silicone polymer to deliver the desired active agents. In the absence of unexpected results, it would have

been obvious to one of ordinary skill in the art to have used the teachings of the combined references to make the delivery devices of the instant claims.

3) Claims 23-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yue et al. (WO 01/01939) in view of Chen (US 2003/0129148) as applied to claims 15-19 and 20-21 above, and further in view of Pfister et al. (US 5,232,702). The rejection is maintained in regards to claims 24-25 and applied to claims 15-21.

*Applicant's Arguments*

Applicant argues Yue is silent on dental trays that include compositions that include a hydrophobic polymer that is a condensation product of a silicone resin and organosiloxane in the recited amounts of the instant claims. Neither reference teaches or suggests a composition that includes a hydrophobic polymer that is a condensation product of silicone and organosiloxane in the recited amounts of the instant claims. A person of skill in the art would not have been motivated to make the combination proposed by the Examiner nor would he have had a reasonable expectation that such combination would be successful, at least because such combination would have been missing several elements of the invention as claimed. This argument is not persuasive.

*Examiner's Response*

Although Yue does not disclose the condensation products of silicone resins and organosiloxane, it does show using the components separately. Pfister et al. discloses the advantage of using these polymers as condensation products as oppose to the components separately, as disclosed in Yue. One of ordinary skill in the art would be

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motivated to use pressure sensitive adhesive found in the art that are used to deliver medicinal agents and/or other active agents. Therefore it would be obvious to use the pressure sensitive polymers in the compositions of Yue because of the advantages disclosed by Pfister et al. and because they are suitable for delivering medicinal agents to the oral cavity. In regards to the tray, Chen discloses the advantages of using a tray when delivering components such as peroxides to decrease irritation of the gums by the peroxide. In the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to have used the teachings of the combined references to make the delivery devices of the instant claims.

Claims 15-21 and 24-25 are rejected.

Claims 1-14 are withdrawn.

No claims allowed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lezah W. Roberts whose telephone number is 571-272-1071. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lezah Roberts  
Patent Examiner  
Art Unit 1614



Frederick Krass  
Primary Examiner  
Art Unit 1614

